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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,921	07/15/2003	John Conan Doyle II	13544.0002.NPUS00	7148
23369	7590	11/02/2005	EXAMINER	
HOWREY LLP C/O IP DOCKETING DEPARTMENT 2941 FAIRVIEW PARK DRIVE, SUITE 200 FALLS CHURCH, VA 22042-7195			SMITH, KIMBERLY S	
			ART UNIT	PAPER NUMBER
			3644	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/619,921	DOYLE, JOHN CONAN	
	Examiner	Art Unit	
	Kimberly S. Smith	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 August 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14, 16-28 and 30-33 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-14, 16-28 and 30-33 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 15 July 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments filed 08/11/05 have been fully considered but they are not persuasive. Regarding the Applicant's statement that Scofield requires the animal to move down a chute as the system takes two measurements along the chute: it is respectfully noted that the invention of Scofield comprises two cameras (18, 20) which are operated to acquire, *at a selected moment*, contemporaneous or substantially simultaneous profile images (column 3, lines 38-40). The cameras (18, 20) are essentially perpendicular to each other (column 3, lines 36-37). As such, the Scofield reference does not require that the animal must traverse through the chute in order to achieve measurements, only that the animal need not be restrained to attain a measurement reading.

2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Doyle reference clearly states that the device is adapted to be fitted into known animal handling facilities such as holding chutes. While the Applicant has focused on the animal crush as the reason for not being a proper combination of references, the disclosure of a holding chute cannot be ignored. The Scofield reference is specifically directed to an animal evaluation system fitted into a chute (it is noted that Scofield does not use the terminology

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"holding chute" however, it is known in the art that the terminology "chute" and "holding chute" are used interchangeably).

3. In response to applicant's argument that the Peterson reference is used to measure a carcass, not a substantially stationary animal, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is noted that a carcass is maintained as an animal. The physical state of the carcass being dead would inherently require the animal to be substantially stationary as the animal, absent of life, is not capable of moving.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-28 and 30-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification is silent to the animal being substantially stationary while being measured. It is noted that paragraph [0038] clearly states that the imaging system monitors the leg movement and position of the legs. As such, the specification discloses that the animal is not required to be substantially stationary.

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6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-28 and 30-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The term "substantially stationary" in claims 1 and 20 is a relative term which renders the claim indefinite. The term "substantially stationary" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification provides no guidance as to what is considered to be substantially stationary. Is this inclusive of an animal breathing? Is this inclusive of an animal shifting in a pen? It is unclear from the specification as to what the claim limitation is to encompass and as such, one with skill in the art would not be capable of ascertaining the metes and bounds of the claim limitation.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4, 7-14, 16-24, 26-28 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scofield, US Patent 5,483,441 in view of Doyle, WO99/67631 (for ease of

reference, cited passages of the Doyle reference will be noted by the column and line numbers in the issued US Patent 6,591,221).

Scofield discloses a system for measuring a physical feature of an animal including a rump height and width, shoulder width and body length comprising a light source (72, 74) and an optical device (18, 20) opposing the light source and obtaining an image that includes a silhouette of the first portion of the animal; comprising a housing unit having at least one sidewall with the optical device mounted thereon (column 5, line 10); including at least one entry port formed at an end of the unit (as viewed in Figure 1A); comprising a device arranged adjacent the animal for positioning within the housing unit (i.e. 30); wherein the image includes at least one silhouette of at least a portion of the one leg, wherein the optical device is a photographic camera. Scofield further discloses that the animal is substantially stationary while being measured (in that the measurement of the animal takes place in the fraction of a second during which cameras (18, 20) capture the image and as such, the animal during that time of measurement is substantially stationary). However, Scofield does not disclose the use of a first ultrasound transducer arranged substantially vertical to the animal to determine an approximate height of a second portion of the animal. Doyle teaches within the same field of endeavor the use of an ultrasound transducer arranged substantially vertical to the animal for the purpose of determining an approximate height of a portion of an animal for measuring the height irrespective of the relative vertical location of the pelvis relative to the length of the animal as the ultrasound signals are conical, the signal is received in a circular manner on the animal providing for the pelvis to be measured irrespective of it's relative position to the measuring device, column 5, lines 55-58). It would have been obvious to one having ordinary skill in the

art to utilize the ultrasound transducer as disclosed by Doyle with the device as taught by Scofield in order to provide for an approximate height of the pelvic region irrespective of the length of the animal.

Regarding claim 9, it is inherent in the structure of a photographic camera that it comprises a lens for limiting the field of view.

Regarding claims 10 and 11, Scofield as modified discloses a processor (43) for determining a measurement of the physical feature from the image.

Regarding claim 12, Scofield as modified discloses the measurement includes the pelvic width of the animal.

Regarding claim 13, Scofield as modified discloses the processor comprising a computer (4) inherently having software and data storage.

Regarding claim 14, Scofield as modified discloses a processor. Regarding the recitation that the processor selects an area on the animal to apply a medical product or to determine subcutaneous fat with an ultrasound transducer, it has been held that the recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Regarding claim 16, Scofield as modified discloses the second portion of the animal includes the pelvic region of the animal.

Regarding claims 17-19, Scofield discloses the measuring of the width of the animal including the pelvic region. However, Scofield does not disclose the use of a second ultrasound transducer to approximate the width of a third portion. Doyle teaches within the same field of endeavor the use of a pair of ultrasound generating means located on either side of the animal to

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measure the width of an animal irrespective of the location of the pelvis relative to the height of the animal (i.e. as the ultrasound signals are conical, the signal is received in a circular manner on the animal providing for the pelvis to be measured irrespective of it's relative position to the measuring device, column 5, lines 55-58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ultrasound transducer as taught by Doyle with the device of Scofield in order to allow for measurement of the width of the animal irrespective of it's horizontal location to the measuring device.

Regarding claim 24, Scofield as modified discloses the means for determining the at least one physical dimension comprises determining an approximate distance between a pair of legs

Regarding claim 27, Scofield as modified discloses the means for determining the approximate skeletal trunk length (326).

Regarding claim 28, Scofield as modified discloses through the use of a processor a means for scaling the approximate distance of the skeletal trunk length.

Regarding claim 30, Scofield as modified discloses the means for determining the approximate height comprises means for measuring an approximate distance from an ultrasound transducer to the portion of the animal (Doyle, column 6, lines 51-52)

Regarding claim 31, Scofield as modified discloses a means for determining an approximate width of a second portion of the animal.

Regarding claim 32, Scofield as modified discloses the means for determining the approximate width comprises means for respectively measuring approximate distances from a pair of substantially opposing ultrasound transducers to the second portion of the animal.

Regarding claim 33, Scofield as modified discloses means for selecting an area on the animal to apply a medical product or to determine subcutaneous fat with an ultrasound transducer (i.e. processor 43).

11. Claims 1-3, 7-13, 20-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al, US Patent 4,939,574 (Petersen) in view of Doyle, WO99/67631.

Petersen discloses a system for measuring a physical feature of an animal comprising a light source (14) backlighting a first portion of the animal and an optical device (18) opposing the light source for obtaining an image that includes a silhouette, wherein the animal is substantially stationary while being measured; having a housing unit with at least one sidewall (1a) with a light source mounted thereon; comprising at least one entry port formed at the end of the unit; wherein the image includes at least one silhouette of at least one portion of one leg; wherein the optical device is a photographic camera. However, Petersen does not disclose the use of a first ultrasound transducer arranged substantially vertical to the animal to determine an approximate height of a second portion of the animal. Doyle teaches within the same field of endeavor the use of an ultrasound transducer arranged substantially vertical to the animal for the purpose of determining an approximate dimension of a portion of an animal for measuring the dimension irrespective of the relative location of the region to be measured relative to the length of the animal (i.e. as the ultrasound signals are conical, the signal is received in a circular manner on the animal providing for the pelvis to be measured irrespective of its relative position to the measuring device, column 5, lines 55-58). It would have been obvious to one having ordinary skill in the art to utilize the ultrasound transducer as disclosed by Doyle with the device as taught

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by Petersen in order to provide for an approximate height of a portion of the animal irrespective of the length of the animal.

Regarding claim 9, it is inherent in the structure of a photographic camera that it comprises a lens for limiting the field of view.

Regarding claims 10, Petersen as modified discloses a processor coupled to the optical device (20) for determining a measurement of the physical feature from the image.

Regarding claim 12, Petersen as modified discloses the measurement includes a width of the leg.

Regarding claim 13, Petersen as modified discloses the processor comprises a computer (20) inherently having software and data storage.

12. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen as modified as applied to claim 1 in view of Eom, US Patent 6,639,352.

Petersen as modified discloses the device as claimed including the light source comprising a plurality of monochromatic lights in an array. However, Petersen discloses the claimed invention except that a linear light source of fluorescent lamps are used instead of LEDs. Eom shows that LED and linear light sources are equivalent structures known in the art. Therefore, because these two backlighting light sources were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute a monochromatic array of fluorescent lamps for monochromatic LEDs.

13. Claims 14 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen as applied respectively to claims 10 and 20 above in view of Stouffer, US Patent 4,785,817.

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Petersen as modified discloses the invention substantially as claimed with the exception of the processor selecting an area to determine subcutaneous fat with an ultrasound transducer. Stouffer teaches within the same field of endeavor the use of an ultrasound transducer to determine the subcutaneous fat within an animal to provide a more accurate grading of the animal. It would have been obvious to use the processor of Stouffer in conjunction with an ultrasound transducer for determining the fat thickness in a selected area to provide for more accurate grading of the animal.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly S. Smith whose telephone number is 571-272-6909. The examiner can normally be reached on Monday thru Friday 10:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly S Smith
Examiner
Art Unit 3644

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